

Appl. No. 10/816,527
Reply to Examiner's Action dated September 30, 2005

IN THE CLAIMS:

1. (Currently Amended) An interconnection for use with electrical components comprising:
 - a first surface;
 - a second surface;
 - a plurality of nanostructures disposed on at least one of said first surface and said second surface; and
 - ~~means for attaching~~ said plurality of nanostructures configured to attach said first surface and said second surface using attractive forces and in a way such that said nanostructures form at least a first conductive connection between said first surface and said second surface.
 2. (Original) The interconnection of claim 1 wherein said conductive connection comprises a thermal connection.
 3. (Original) The interconnection of claim 1 wherein said conducting connection comprises an electrical connection.
 4. (Original) The interconnection of claim 1 wherein said plurality of nanostructures comprises:
 - a first plurality of nanostructures disposed on at least a first area of said first surface; and
 - a second plurality of nanostructures disposed in at least a first area of said second surface,wherein said first plurality of nanostructures and said second plurality of nanostructures are adapted to transfer thermal or electrical energy from said first plurality of nanostructures to said second plurality of nanostructures.
- Kindly Cancel Claim 5 without prejudice or disclaimer.
6. (Currently Amended) The interconnection of ~~claim 5~~ claim 1 wherein said attractive forces comprise attractive intermolecular forces

Appl. No. 10/816,527

Reply to Examiner's Action dated September 30, 2005

7. (Original) The interconnection of claim 6 wherein said intermolecular forces comprise Van Der Waals forces.

8. (Original) The interconnection of claim 6 wherein said intermolecular forces comprise dipole-dipole forces.

9. (Currently Amended) An interconnection comprising:
a first surface;
a second surface;
a first plurality of conductive nanostructures disposed on said first surface;
a second plurality of conductive nanostructures disposed on said second surface,
wherein said first plurality of nanostructures and said second plurality of nanostructures are configured to interleave with one another and adapted to transfer thermal or electrical energy from said first plurality of nanostructures to said second plurality of nanostructures.

10. (Currently Amended) A method for transferring thermal or electrical energy across an interconnection, said method comprising:
contacting a first plurality of conductive nanostructures with a second plurality of conductive nanostructures, said first plurality and said second plurality attaching to one another using attractive forces,

wherein at least a portion of said nanostructures in said first plurality and a portion of said nanostructures in said second plurality comprise a conductive material.

11. (Original) The method of claim 10 wherein said conductive material is a thermally conductive material.

12. (Original) The method of claim 10 wherein said conductive material is an electrically conductive material.

Appl. No. 10/816,527

Reply to Examiner's Action dated September 30, 2005

13. (Currently Amended) A method for transferring thermal or electrical energy across an interconnection, said method comprising:
- bringing a plurality of nanostructures on a first surface into contact with a second surface;
- and
- causing at least a portion of the nanostructures in said plurality of nanostructures to adhere to said second surface using attractive forces.
14. (Original) The method of claim 13 wherein said step of causing comprises contacting said plurality of nanostructures with said second surface in a way such that the molecules of said at least a portion of the nanostructures are attracted to the molecules of said at least a second surface.
15. (New) An interconnection for use with electrical components comprising:
- a first surface;
- a second surface;
- a first plurality of nanostructures disposed on one side of an intermediate layer and a second plurality of nanostructure disposed on an opposing side of said intermediate layer, said intermediate layer configured to be positioned between said first surface and said second surface such that said first plurality of nanostructures adhere to said first surface and said second plurality of nanostructures adhere to said second surface.
16. (New) The interconnect as recited in claim 15 wherein said first plurality of nanostructures adhere to said first surface using attractive forces and said second plurality of nanostructures adhere to said second surface using attractive forces.
17. (New) The interconnect as recited in claim 15 wherein said first plurality of nanostructures and said second plurality of nanostructures form a conductive connection between said first surface and said second surface